THIS IS ONE VOLUME OF A SIX VOLUME SET WHICH INCLUDES·

VOLUME I FIELD OPERATIONS (FO)
VOLUME II GROUNDWATER (GW)
VOLUME III GEOTECHNICAL (GT)
VOLUME IV SURFACE WATER (SW)
VOLUME V ECOLOGY (EE)
VOLUME VI· AIR (AP)

TABLE OF CONTENTS FOR VOLUME III GEOTECHNICAL

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT
DOCUMENT CHANGE NOTICE (DCN)

PRESS FIRMLY AND PRINT LEGIBLY OR TYPE PROPOSED CHANGES TO INSURE DUPLICATE IS MADE ON ALL COPIES

DOCUMENT NUMBER Procedure No GT.8.5-21000-OPS-GT

TITLE	DATE	DCN NUMBER
Surface Soil Sampling	November 22, 1991	GT 8-91-1

EXPIRES Feburary 25, 1992

LIMITATIONS OU2

Item Number	Page	Step or Paragraph	Changes (Use DCN CONTINUATION SHEET for additional space)
(1)	4 of 16	Section 5 0, Paragraph 3	Soil classification according to GT 1 will not be required Particle size analyzes will be conducted according to Attachment 1 0, Surficial Soil Sampling Plan of the OU2 Work Plan (Document Number 21100-WP-OU02 1, RO)
(2)	5 of 16	2nd Bullet	Glass containers may be used instead of stainless steel or plastic Since the composite volume collected from 25 subsample points generally amounts to about 16 ounces (volume) or less, 16-ounce glass jars may be used for composite laboratory samples Two-ounce glass jars may be used for radiological screening samples
(3)	N/A	Subsection 5 2 1	SOP GT 8 does not currently address the procedure to be used for obtaining QA duplicate samples Duplicate samples will be obtained by offsetting the primary subsample location 0.5 to 2 feet upwind and placing the duplicate subsamples in a separate jar The duplicate sample will be composited and containerized following the same procedures as for the primary sample The frequency of duplicate samples is defined in the Field Sampling Plan (FSP) or the Quality Assurance Addendum (QAA)
(4)	N/A	Subsection 5 2 1	SOP GT 8 does not currently address a procedure to be used for determining and documenting the locations of the 25 subsample points within each sample plot The target locations of the 25 subsample locations within each sample plot will be described by an evenly spaced grid For example, for 10-acre plots, the subsample target locations are described by a 132-foot grid The subsample points around the periphery of the plot are 66 feet from the plot edge, or 132 feet from the subsample points in the adjacent plot Similarly, for 2.5-acre plots, the spacing is reduced to 66 feet with the peripheral points 33 feet from the plot boundary See Item Number (5) of this DCN for an example of a typical 10-acre plot layout Numbering of the subsample points will start at the first point sampled (which will be at the southwest corner unless site features dictate a different starting point), and continue consecutively up one row and down the next until all 5 rows of 5 points each have been sampled All plot corners will be surveyed and permanently marked (see SOP GT 17, Land Surveying) Therefore, the reference point for any given plot may consist of any one of the corners, however, preference will be given to the southwest corner to conform with computer plotting routines. The reference point used will be documented on Form 3 8A The subsample points will be surveyed by taping, use of a measuring wheel, or by pacing, combined with the use of a Brunton compass Regardless of the method used, survey checks using the following procedures will be made to verify the accuracy of the measurements For an evenly spaced grid where none of the subsample points are offset, bearings will be measured with the Brunton compass from subsample points 1, 3, 5, 7, 8, 9, 11, 13, 15, 17, 18, 19, 21, 23, and 25, to the nearest plot corner marker when the corner marker is within sight and when the subsample point has not been offset. In addition, distance measurements will be made to the plot corners and boundaries from subsample points 5, 10, 15, 20, and 25 Distance measurements will be made by pacing the perpendicular distance from the subsample point to the boundary and from this location to the plot corner The purpose of the bearings and distance measurements is to enable documentation of the accuracy of the subsample point locations See Item Number (5) of this DCN for an example of how these checks will be documented If any of the survey checks identifies a discrepancy of more than 30 feet, the subsample points will be remeasured until the survey checks indicate all subsample points are within 30 feet of their planned locations

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT
DOCUMENT CHANGE NOTICE (DCN)
(Continued)

PRESS FIRMLY AND PRINT LEGIBLY OR TYPE PROPOSED CHANGES TO INSURE DUPLICATE IS MADE ON ALL COPIES

DOCUMENT NUMBER Procedure No. GT 8, 5-21000-OPS-GT

TITLE	DATE	DCN NUMBER
Surface Soil Sampling	November 22, 1991	GT 8-91-1

EXPIRES Feburary 25, 1992

LIMITATIONS OU2

Item Number	Page	Step or Paragraph	Changes (Use DCN CONTINUATION SHEET for additional space)
			The planned locations of subsample points may be revised when obstacles are encountered within the plot If pavement, disturbed ground, or other obstacles are present that would jeopardize sample integrity or endanger the samplers, the grid may be adjusted to allow the 25 subsamples to be obtained from a smaller area When practical, the originally planned grid spacing will be maintained, however, this can not be done if a relatively large portion of a plot can not be sampled All offset locations will be documented on a sketch complete enough to be able to relocate each subsample location within an accuracy of 30 feet Survey checks as described above will be made to document the accuracy of the offset subsample points See Item Number (5) of this DCN for an example of how offsets are documented
(5)	16 of 16	Section 8 0 Form GT 8B	Form GT 8B will be updated to include a supplement The Supplement to Form GT 8B and an example of a correctly completed form is attached to this DCN
(6)	16 of 16	Section 8 0	An RFEDS Surface Soil Sample Collection Form (FO 14E) will be used to document input of data into RFEDS

Justification (Reason for change - Provide numbers to reference corresponding items above)

(1) To maintain consistency with OU2 Alluvial Work Plan
(2) To be consistent with QAPjP
(3) To supplement SOP
(4) To supplement SOP
(5) To supplement Form GT 8B
(6) For input to RFEDS

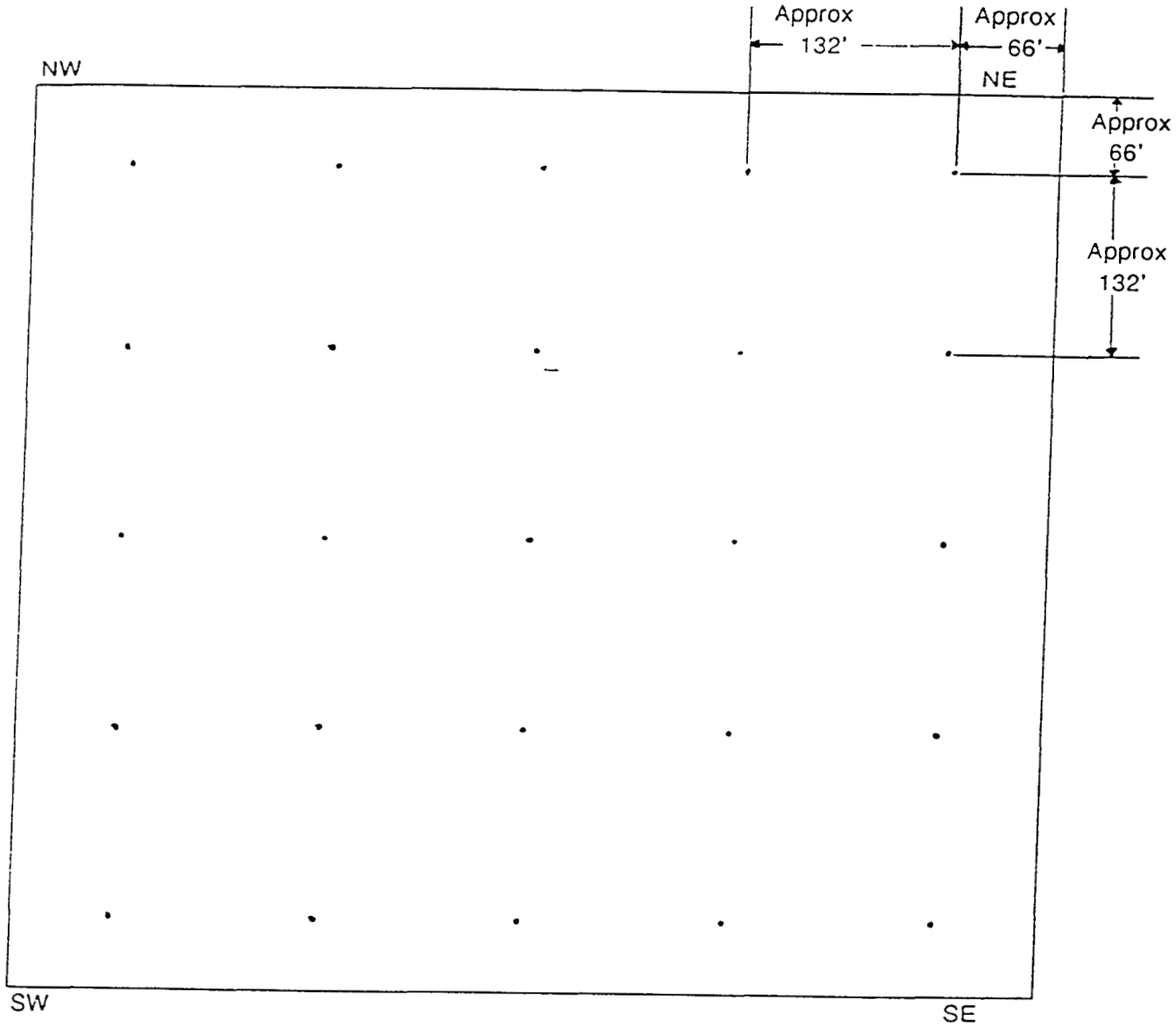
Concurrence	Organization	Req	Date	Concurrence	Organization	Req	Date
	QAPM	X	11/26/91		EM/ERD	X	11/25/91
	EOM	X	11-25-91		EM/RPD	X	11/25/91

13 Approval of Responsible Manager	14 Date	15 Is Posting Required	16 If Yes, by what date	17 Date Posted

SUPPLEMENT TO
FORM GT.8B

ROCKY FLATS
FIELD ACTIVITIES REPORT
SURFACE SOIL SAMPLING

PROJECT NUMBER _____ DATE_____
PROJECT NAME _____
PLOT NUMBER _____ SAMPLE NUMBER_____
SAMPLERS _____



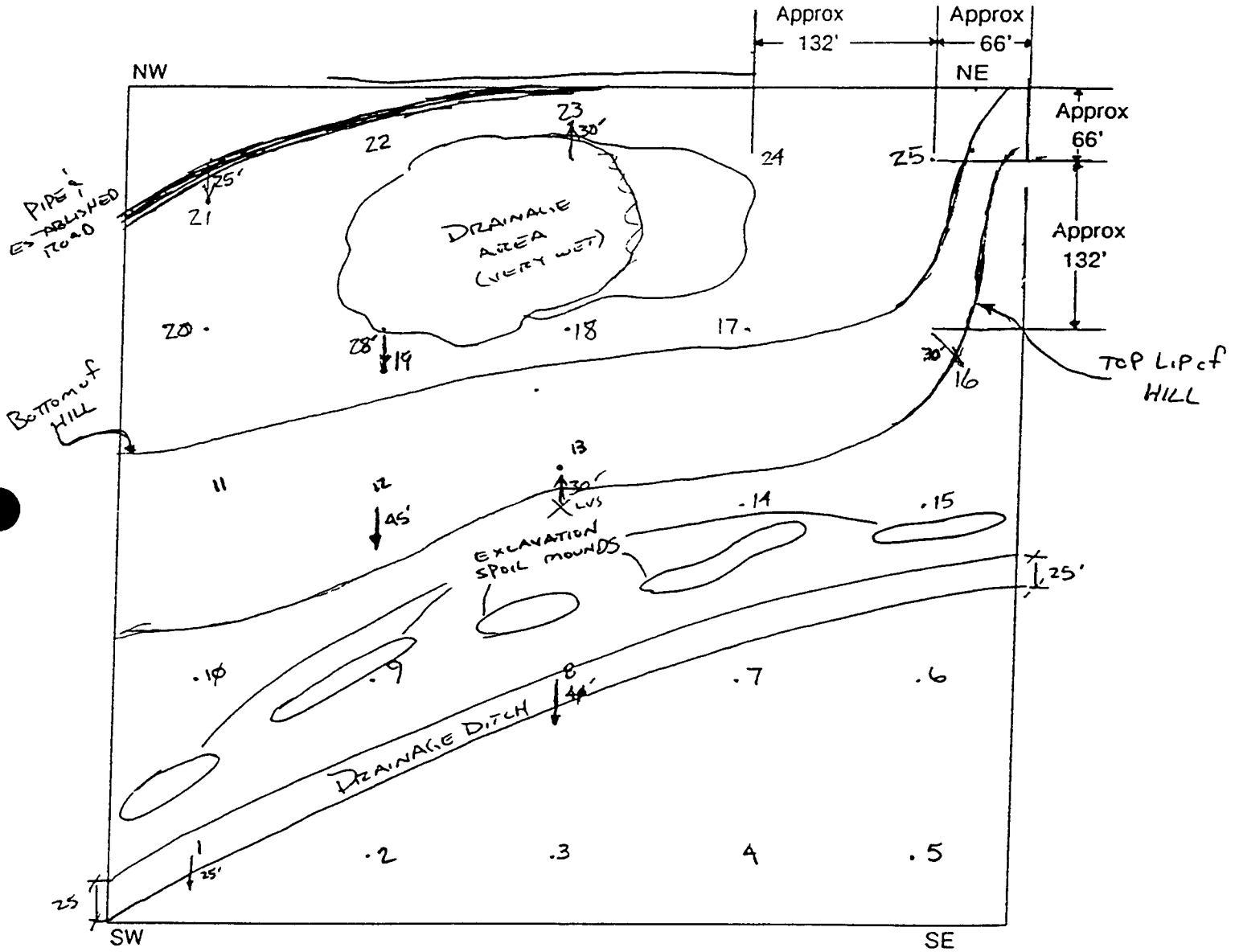
COORDINATES OF SW CORNER
N
E

T1=	T6=	T11=	T16=	T21=
T2=	T7=	T12=	T17=	T22=
T3=	T8=	T13=	T18=	T23=
T4=	T9=	T14=	T19=	T24=
T5=	T10=	T15=	T20=	T25=

SUPPLEMENT TO
FORM GT.8B

ROCKY FLATS
FIELD ACTIVITIES REPORT
SURFACE SOIL SAMPLING
EXAMPLE

PROJECT NUMBER A00006 DATE 7/22/91
PROJECT NAME OUX SURFACE SOIL SAMPLING
PLOT NUMBER PLOT XX SAMPLE NUMBER SS0006XXXX0007
SAMPLERS LVS JAJ



COORDINATES OF SW CORNER
N XXXXX
E XXXXX

T1= 0841	T6= 0854	T11= 0913	T16= 0935	T21= 0957
T2= 0842	T7= 0859	T12= 0917	T17= 0944	T22= 1005
T3= 0844	T8= 0903	T13= 0920 LVS	T18= 0950	T23= 1011
T4= 0846	T9= 0905	T14= 0922	T19= 0952	T24= 1011
T5= 0849	T10= 0908	T15= 0925	T20= 0954	T25= 1021

FORM FO 14E

RFEDS
SURFACE SOIL SAMPLE COLLECTION FORM

Project Number	EMAD	Name	EMAD
Sample Number		Type	SO
North or Y		East or X	
Boring Number			

Collection Date	/ /	Quarter	Dry
Collection Time			
Sample Location			
Composite	(Y/N)		
Composite Desc			
QC Type		Partner	
Collection Method			

Sample Team Leader	
Member	
Member	
Volume Collected	Units
Prapared By	

Project Number	EMAD	Name	EMAD
Sample Number			

Depth of take	Start	End
	in	
	in	
	in	
	in	

Headspace Reading
Comments